REMARKS

Claims 1-14 are pending in the application. These claims were rejected as follows:

Claims / Section	35 U.S.C. Sec.	References / Notes
1-2, 7-8 & 11-14	§102(e) Anticipation	• Pedersen (U.S. Patent Pub. No. 2004/0247148).
3-6, 9	§103(a) Obviousness	• Pedersen (U.S. Patent Pub. No. 2004/0247148).

Applicants have amended claim 1 to utilize the language of claim 7 more consistently. Since the Examiner analyzed claim 1 on the basis of the elements of claim 7, Applicants respectfully contend that this does not raise new issues requiring a further search. Applicant further responds to the rejections in the Final Office Action as follows and respectfully request reconsideration based on the discussion presented below.

DECLARATION UNDER 37 CFR §1.131 PREVIOUSLY SUBMITTED

1. Applicants have shown diligence in the completion of the invention from the time just prior to the date of the reference continuously up to the date of the filing date of the application without a long interval of unexplained activity.

In the previously submitted Amendment C, the Applicants submitted an inventor declaration under 37 CFR §1.131 to establish conception and diligence prior to the date of the Pedersen reference. Pedersen was filed as a PCT application on September 20, 2002 (note that Pedersen's priority date is of no consequence under 35 U.S.C. §102(e)).

The declarations of Kunibert Husung and Torsten Niederdränk were filed that established:

Conception of the invention prior to the September 20, 2002, filing date of Pedersen

- conception by the inventor prior to May 3, 2002;

Diligence of the inventor in from a time just prior to the date of the reference continuously up to the date of the filing date of the application

- conception documented in invention disclosure report;
- invention disclosure report executed by inventor on May 3, 2002;
- invention report submitted to Siemens patent manager;
- invention report accepted and signed by patent manager on May 14, 2002;
- invention report submitted to Siemens Patent Department;
- invention report registered in the Siemens Patent Department on May 22, 2002;
- application filed in Germany (priority application) on September 30, 2002.

In the OA, on p. 5, the Examiner stated that the evidence submitted was insufficient to establish diligence from a date prior to the date of reduction to practice of the Pedersen reference to a constructive reduction to practice. The Examiner stated:

> The Applicant must show diligence in the completion of the invention from the time just prior to the date of the reference continuously up to the date of the actual reduction to practice or up to the filing date of the application. Evidence of diligence must be shown for the entire critical period. If there is a long interval of unexplained inactivity, then diligence has not be [sic] established.
>
> The Applicant must show completion of the invention commensurate with the extent that the whole

> invention as claimed is shown by evidence. This evidence must include:
>
> 1) a statement of facts;
>
> 2) the facts must be shown in the form of sketches, blueprints, notebook entries, models, etc. for the entire critical time period;
>
> 3) all acts relied upon mush have occurred in this country or a NAFTA or WTO member country after the effective date of the Pedersen reference.
>
> [Emphasis in original]

The Applicants did provide: 1) a statement of facts (Kunibert Husung and Torsten Niederdränk declarations); 2) facts shown in the form of sketches, etc. (the invention disclosure report) for the entire critical period (the time of creating and executing the invention report on May 3, 2002, through the filing of the application on September 30, 2002; and 3) all acts relied upon occurred in Germany, which is a WTO member country.

The difficulty in the present case in hand is that the Pedersen reference was filed on September 20, 2002, whereas the priority application was filed on September 30, 2002. This leaves only ten days in between.

Applicants presume that the Examiner is referring to the time period between the invention report being registered on May 22, 2002, and the application filing on September 30, 2002, as being the long interval of unexplained inactivity which defeats establishing a showing of diligence. Applicants respectfully disagree with this conclusion. The preparation of a patent application suitable for filing is a fairly involved and complex process. It involves a coordination between draftsmen and patent attorneys, agents, and/or patent

professionals to annotate drawings, develop proper claim scope, review prior art documents, finalize the application, and getting authorization to file the application. A four month time period for this type of activity, following the clearly documented level of activity occurring between May 3, 2002, and May 22, 2002, does not constitute a "long interval of unexplained inactivity", but rather is what one would come to expect as a natural time period for activities necessary to bring an invention disclosure to its ultimate fileable form. The fact that there are not daily memos documenting the activities related to this application from September 19, 2002, (the day immediately before the filing date of Pedersen) to September 29, 2002, (the day immediately before the filing date of the present priority document) does not mean that there is a long interval of unexplained inactivity and does not serve to destroy the establishment of diligence.

For these reasons, the Applicants respectfully content that the evidence of record *does* adequately establish an earlier conception date and a showing of diligence from prior to the filing date of the Pedersen reference to the point of constructive reduction to practice.

However, in the event that this showing is still deemed to be inadequate, the Applicants have provided below, in the alternative, a technical basis for distinguishing the Pedersen reference on the merits and respectfully request that these arguments also be considered.

35 U.S.C. §102(e), CLAIMS 1-2, 7-8 AND 11-14 ANTICIPATION BY PEDERSEN

2. Pedersen does not teach each and every element of the claim—the

Examiner has incorrectly read the PLL of Pedersen on the jitter unit of the present invention, which is improper.

In the OA, on pp. 2-3, the Examiner rejected claims 1-2, 7-8, and 11-14 as being anticipated by Pedersen. The Examiner indicated that claims 1 and 2 disclose a method that is inherent to the logical implementations of the structure found in claims 7 and 8, and therefore read Pedersen on the claim elements of independent claim 7.

With respect to claim 7, the Examiner stated:

> Regarding claims 7 and 11-13, Pedersen teaches a hearing aid device or hearing device system, comprising: at least one input transducer (paragraph 0003 and 0007) configured to acquire an input signal and transduce it into an electrical signal; an AID converter (paragraph 0011) configured to convert the electrical input signal into a digital signal; a digital signal processing unit ((DSPM) configured to process the digital signal; a clock generator (CGM, paragraphs 0010 and 0093) configured to generate a clock signal to control the digital signal processing unit; an output transducer (paragraph 0003 and 0007) and inherently includes at least one of a transmitting and receiving unit (paragraph 0091) configured to wirelessly transmit between the hearing aid device or hearing device system and a further device; and a jitter unit (PLL, paragraph 0093) associated with the clock generator configured to generate frequency oscillations in the clock signal.

The present invention deals with the problem of reducing an electromagnetic interference signal that is generated and emitted by a hearing device due to its clocked operation. Pedersen deals with a very different problem, which is the optimization of the power consumption in a hearing device.

Pedersen proposes, among other things, that the clock frequency can be decreased to save power.

In the present invention, the destabilization of the clock signal (via the jitter mechanism) leads to the situation that both: 1) the energy portions of the interference signals generated in the hearing aid device being distributed with the clock frequency, and 2) their harmonics being distributed on a larger frequency band, and therewith, the frequency-specific energy is reduced.

This, in turn, means that the amplitude or an interference signal caused by the harmonics lies below the reception threshold of the reception unit given a correspondingly-dimensioned fluctuation of the clock signal. Harmonics of the clock frequency therefore no longer lead to interferences given wireless reception of a signal from an external device. In general, this is advantageous in that a hearing aid device in connection with a signal transmission system for wireless signal transmission enables an interference-free communication.

The clock frequency in the invention remains (in a broad, general sense) unchanged, in contrast to Pedersen, whereby the clock frequency is adjusted corresponding to the requirements and then remains unchanged at least over a longer time span. When the clock frequency is changed (for example reduced) in Pedersen, this means that the time interval between two clock edges is always larger. This is not the case in the invention. There the time interval between two clock edges should always remain constant, on average, over a longer time span.

Of some significance, the Examiner stated, in the OA on p. 3 that Pedersen discloses a jitter unit 9PLL, paragraph 0093) associated with the clock generator configured to generate frequency oscillations in the clock signal. As described in paragraphs [0017]–[0020], the jitter unit performs a function of *destabilizing* the clock signal. A stable clock signal is modulated with a further signal to produce the destabilized clock signal.

In contrast, it is known in the art to use a phase-locked-loop PLL to *stabilize* a signal. It is well known in the art that a PLL is a closed-loop feedback control system that is used to match the phase and frequency of a controlled oscillator with that of a reference signal, and is generally used where it is desirable to stabilize a generated signal. This usage is consistent with how Pedersen applies it. Pedersen states, in paragraph [0093], "The clock frequency of the DSP itself may be controlled by an analogue or digitally-controlled circuit, e.g., a phase locked loop PLL." Although Pedersen's PLL is used in a slightly more complex manner (driving the DSP by a programmable control PLL-based multiplication circuit), the overall purpose is stability of the DSP clock frequency. Clearly the PLL of Pedersen does not serve to *destabilize* the clock signal and deliberately introduce frequency variation, and therefore, it is improper for the Examiner to apply Pedersen's teaching of the PLL circuit as reading on the jitter unit according to the present invention.

Given the significantly different aims of the present invention and the teachings of Pedersen, Applicants respectfully assert that not only is the present

invention not anticipated by Pedersen, but, lacking a teaching of this key component, is not an obviating teaching either.

Applicants rely on these arguments with respect to the claims depending from independent claims 1 and 7 in the application.

For these reasons, the Applicants assert that the language clearly distinguishes over the prior art, and respectfully request that the Examiner withdraw the §102(e) rejection from the present application.

35 U.S.C. §103(a), CLAIMS 3-6, 9 AND 10 OBVIOUSNESS OVER PEDERSEN

3. Applicants rely upon the above arguments with respect to the independent claims.

Without further addressing the dependent claims cited by the Examiner as being obviated by the disclosure of Pedersen, Applicants rely on the previously stated arguments and assert that the teaching of Pedersen fails to obviate the presently claim invention as claimed in independent claims 1 and 7.

For these reasons, the Applicants assert that the language clearly distinguishes over the prior art, and respectfully request that the Examiner withdraw the §103(a) rejection from the present application.

CONCLUSION

Inasmuch as each of the objections have been overcome by the amendments, and all of the Examiner's suggestions and requirements have been satisfied, it is respectfully requested that the present application be reconsidered,

the rejections be withdrawn and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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